REMARKS

Reconsideration of this application, as amended, is earnestly requested.

Claim 40 is amended as shown above, and claims 1-22, 24-26, 28-39, 41-42, and 44-45 previously have been cancelled without prejudice. Claims 23, 27, 40, 43, and 46 are all the claims pending in the application, all being independent claims.

Claims 23, 27, 40, 43, and 46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takiyasu et al. (US 5,537,414) in view of Feinberg et al. (US 6,065,046). These rejections are respectfully traversed.

Claim 40 is amended to correct a minor punctuation informality.

103 Rejections

Regarding Takiyasu

Independent claim 23 recites "A method for transmitting a data frame having a header portion and a data portion from a mobile station to a network ...; assigning a first field of the header portion to indicate whether the data frame has a request of a time resource while sending data included in the data portion...; assigning a second field of the header portion to identify an amount of the time resource requested, when the first field has the first logic value; [and] assigning a third field of the header portion to contain a priority parameter representing control information related to at least one of a fragmentation and a retransmission".

In the Office Action, the Examiner asserted that the header portion recited in claim 23 corresponds to R1, R2, R3 and R4 in Takiyasu, Fig 2. The Examiner also asserted that a data portion of claim 23 corresponds to data length (DL) 53 and fragmented data (I) 54 of R4. Further, the Examiner asserted that the first, the second, and the third fields of the header portion of claim 23 correspond to

the RI field 43 having a sequence number (SN) field 43a, NF 43c, and ND 46 and FN 47, either alone or in combination, respectively. According to the Examiner's assertions, Takiyasu's communication frame 30 in Fig 2 would correspond to the data frame of claim 23. Applicant respectfully disagrees.

Applicant respectfully notes that communication frame 30 shown in Takiyasu Fig 2 is not a data frame having a header portion and a data portion, and is transmitted from a mobile station to a network. That is, the communication frame 30 consists of a plurality of slots, each of which can be used separately in a transmission from a source station to a base station or from a base station to a destination station or from a source station to a destination station, etc. More specifically, the communication frame 30 consists of a frame synchronization field R1, a reply field R2, a request field R3, and an information field R4 having a plurality of FSs, 38a-n. Each of R1, R3 and the FSs (38a-n) has a guard time field GT used to absorb a shift of timings between mobile stations and a preamble P (33, 41, 50) used for the synchronization with a source station and a base station (col. 13:42 - col. 14: 34). This means that each of R1, R3 and each of the FSs 38a-n may be transmitted separately from a source station to a base station or from a base station to a destination station or from a source station to a destination station, etc. Moreover, each field has a separate header. *See* Takiyasu, col. 13: 29 – col. 15: 46.

Takiyasu, FIG. 3 and col. 14: 35 - col. 15: 46, makes this point more clearly. Col. 14: 42-49 reads "During the period of the request field R3 of the communication frame, the source station 2a requests a fragment slot access right to transmit a message, and sets access request information to an optional request slot 37i (step 10)". Other steps of Fig 3, each of which is for a transmission between a source station 2a and a base station 3a or between a base station 3a and a destination station 2b or between a source station 3a and a destination station 2b, individually, use a part of the communication frame 30.

Therefore, it is respectfully submitted that the communication Takiyasu's frame 30 is not a data frame having a header portion and a data portion, and transmitted is from a mobile station to a network. Applicant respectfully notes that the communication frame 30, as a combination of each transmission unit, cannot be compared to the data frame of claim 23, and only among each RS 37, individually, might be compared to the data frame of claim 23 since each of RS is a transmission unit transmitted from a source station 2a to a base station.

Moreover, it is respectfully noted that specific RS fields in Takiyasu fail to teach all the limitations about the first, second and third fields of a header portion and a relation between them. The Examiner admitted only that Takiyasu fails to disclose the first field having either a first logic value or a second logic value. However, it is respectfully noted that the first field of the header portion of claim 23 is "to indicate whether the data frame has a request of a time resource", while the request information RI 64 field having an SN field 43a, shown in Takiyusu, Fig 2, is not related to indicating whether or not some information is present in the data frame.

More specifically, the RI field 43 in Takiyusu itself is set with an access request to a fragment field (col 13: 56-65). That is, the RI field itself is set with some kind of request while the first field of the header portion of claim 23 is to indicate whether or not the data frame has a request. Further, considering that the data frame corresponds to the RS field in Takiyusu, the RI field does not indicate whether the RS field requests a time resource. Even when the SN field 43a is set with a sequence number of an access request represented by modulo 8 is further considered, neither the RI field itself nor the RI field having the SN field teaches or suggests the first field of the header portion of claim 23 indicates "whether the data frame has a request of a time resource while sending data included in the data portion." In fact, according to the Takiyasu's teaching, a data message is separately transmitted via another unit (FS).

Applicant also respectfully notes that the second field of the header portion of claim 23 is to identify "an amount of the time resource requested" in the data frame, when the first field has the first logic value, that is, when the data frame has requested a time resource. However, Takiyusu's NF 43c set with the number of fragments necessary for the source station to transmit one message fails to teach that the number of fragments identified by Takiyusu's NF 43c is for the time resource requested by the request in the data frame. That is, the number of fragments necessary to transmit one message according to NF 43c fails to teach the relation between the amount of time resource and the request in the data frame. Further, Takiyasu fails to teach or suggest the relation with the first field (RI having SN field) and the second field (NF 43c), while the second field of the header portion of claim 23 identifies an amount of the time resource requested, when the first field has the first logic value.

It is also respectfully noted that Takiyusu's RS field completely fails to teach the third filed of the header portion. In the office action, the Examiner asserted that ND 46 and FN 47 in the FS 38b field correspond to the third field of the header portion in claim 23. However, as stated above, the ND and FN fields are not included in a single header portion having the RI and NF fields. Takiyusu's R3 field having the RI and NF fields and Takiyusu's R4 field having ND 46 and FN both have individual GT, P, and address information. Thus these fields are transmitted separately. This means that ND 46 and FN 47 in FS 38b field correspond to the third field of the header portion of claim 23, which is assigned in the same header portion of a data frame as the first and the second fields of claim 23.

Claim 23 is directed to transmitting a data frame, and by transmitting a data frame having the data structure as claimed, the mobile station doesn't have to transmit separate managing information for a resource request or a priority parameter. Such separate managing information or the priority parameter must be transmitted to the base station for conventional uplink data transmission. It is respectfully noted that Takiyasu fails to teach or suggest the specific first, second,

and third fields of a header portion of claim 23, and since Takiyasu's frame 30 fails to match the data frame of claim 23, Takiyasu fails to teach or to suggest transmitting a data frame having the first, second and third fields of a header portion, and a data portion, as a whole.

Regarding Feinburg

In the Office Action, the Examiner stated that Feinberg's "Request-Resource flag (ResourceReq) indicating whether the packet constitutes a request for a resource" cures the deficiency of Takiyasu not teaching the first field of claim 23 having a first logic value when the data frame has time resource request. Applicant respectfully disagrees.

Arguably, Feinburg's MCMP packet having the MCMP header corresponds to 'data' in a data portion of a data frame of claim 23. Thus combining Feinberg with Takiyasu is not obvious, since all the fields of MCMP packet of Feinberg are be considered data in view of a frame transmitted between network and base station. Therefore Feinberg fails to cure the deficiency of Takiyasu not teaching of a data frame having a data portion and a header portion having the claimed field, and transmitted from a mobile station to a network.

As stated above, according to claim 23, by transmitting a data frame having the data structure as claimed, the mobile station does not have to transmit separate managing information for a resource request or a priority parameter, which is needed to be transmitted to the base station for conventional uplink data transmission. It is respectfully noted that the combination of Takiyasu and Feinberg fails to teach or suggest not only the specific first, second and third fields of a header portion of claim 23, but also the data frame structure, as a whole, for transmission from a mobile station to a network for use in a wireless communication system having the claimed structure. Therefore, claim 23 is not obvious over Takiyasu and Feinberg, either alone or in combination, and independent claim 23 is patentable over the cited references.

Independent claims 27, 40, 43 and 46 have features similar to independent claim 23, and also are patentable over Takiyasu and Feinberg as well.

As set forth in MPEP 2143, to show a *prima facie* case for obviousness, all the prior art references, either individually or combined, must teach all the claim limitations. Neither Takiyso nor Feinburg, nor any combination of Takiyso and Feinburg teach all the limitations of independent claims 23, 27, 40, 43 and 46, and applicant submit that a *prima facie* case for obviousness has not been shown and that claims independent 23, 27, 40, 43 and 46 are patentable over the cited prior art.

CONCLUSION

In view of the above amendments and remarks, applicant respectfully requests reconsideration and withdrawal of the rejections, and an early indication of the allowance of the claims. Applicant believes the claims are in a condition for allowance and respectfully solicit favorable action.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If any points remain at issue which the Examiner feels may be best resolved through a telephone interview, the Examiner is kindly invited to contact the undersigned at (213) 623-2221.

Respectfully submitted,
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Date: February 27, 2009

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